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ABSTRACT

In order to obtain accurate and factual data, a survey instrument must be well constructed and a survey planned carefully and conducted under strict conditions. Of importance in planning a survey is a determination of previous and on-going research through an extensive literature review. In designing the survey, the researcher should aim at precision, logic, and efficiency in translating research objectives into specific questions, and at obtaining a large percentage of reliable returns. The subject of the research should justify the effort and the information should be otherwise inaccessible. The questionnaire should be brief, contain clear instructions, be organized in a neat and logical order that facilitates progress from question to question, and should be worded understandably and objectively, but in such a way as to be challenging and interesting. Various questionnaire styles--"closed," "open," "agree/disagree"--have particular advantages and disadvantages that should be considered when selecting one. In distributing the questionnaire, it is essential to identify the exact nature of the study population and the representativeness of the sample chosen. Questionnaires should be mailed at the same time, and first returns should be expected within a week. Follow-up procedures should begin at the end of the third week. Determination of the appropriateness of computer use in processing data should be included in original planning. (AYC)

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QUESTIONNAIRE CONSTRUCTION FOR MAXIMUM SURVEY RESPONSE

BY

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QUESTIONNAIRES ARE USEFUL IN PROVIDING DESCRIPTION IN EDUCATIONAL RESEARCH AND IN THE COMMUNITY COLLEGE AREA IN PARTICULAR. DEBORD,[1] IN HIS STUDY OF RESPONSE RATES OF VOCATIONAL/TECHNICAL TEACHERS, HAS SUMMARIZED THE FINDINGS OF A NUMBER OF RESEARCHERS WHO HAVE DEMONSTRATED THAT QUESTIONNAIRE STRUCTURE AND METHOD OF INTRODUCTION INFLUENCE THE RESPONSE RATE. BEFORE LAUNCHING INTO A PROJECT IN WHICH A QUESTIONNAIRE IS UTILIZED AS THE DATA GATHERING DEVICE, CAREFUL PLANNING IS ABSOLUTELY ESSENTIAL IN ORDER TO AVOID METHODOLOGICAL DEFECTS. THIS STUDY WILL ATTEMPT TO PROVIDE PRACTICAL INFORMATION AS TO THE TECHNIQUES WHICH CAN BE USED IN PLANNING AND EXECUTING A QUESTIONNAIRE AS A MAJOR SOURCE OF DATA COLLECTION.

A DESCRIPTIVE SURVEY IS A METHOD OF OBTAINING FACTS AND FIGURES ABOUT A CURRENT SITUATION, A FORM OF PLANNED COLLECTION OF DATA.[2] APPROPRIATE FOR PRESENTING FACTS, IT "ATTEMPTS USUALLY TO DESCRIBE A CONDITION OR TO LEARN THE STATUS OF SOMETHING AND, WHENEVER POSSIBLE, TO DRAW VALID GENERAL CONCLUSIONS FROM THE FACTS DISCOVERED."[3] GENERALLY, A SURVEY IS NOT FOR THE PURPOSE OF SOLVING AN EDUCATIONAL PROBLEM, BUT RATHER TO PROVIDE A PREVIOUSLY LACKING DESCRIPTION.

ACCORDING TO OPPENHEIM, MOST SURVEYS GO THROUGH THE SAME STAGES OR CYCLES:[4]

1. DECIDING THE AIMS OF THE STUDY AND THE QUESTIONS TO BE INVESTIGATED.
2. REVIEWING THE RELEVANT LITERATURE; COMMUNICATING WITH KNOWLEDGABLE PERSONS IN THE SUBJECT AREA.
3. DESIGNING THE STUDY AND MAKING QUESTIONS SPECIFIC TO THE SITUATION.

4. DESIGNING OR ADAPTING RESEARCH METHODS AND TECHNIQUES; PILOT WORK AND REVISION OF THE RESEARCH INSTRUMENT.
5. SELECTING THE POPULATION, OR PEOPLE TO BE APPROACHED.
6. FIELD WORK STAGE. DATA COLLECTION.
7. PROCESSING THE DATA, CODING THE RESPONSES FROM RETURNS.
8. ANALYSIS.
9. ASSEMBLING THE RESULTS.
10. RELATING FINDINGS TO OTHER RESEARCH. DRAWING CONCLUSIONS. WRITING RESULTS IN THE RESEARCH PAPER.

REVIEWING THE LITERATURE

DETERMINATION OF PREVIOUS CONTRIBUTIONS TOWARD RESEARCH INVOLVES A CAREFUL REVIEW OF THE PRESENT STATUS OF KNOWLEDGE WITH REGARD TO THE SUBJECT. IT INVOLVES A SEARCH FOR PUBLISHED AND UNPUBLISHED MATERIAL RELATING TO THE QUESTION BEING STUDIED. IN ORDER TO DETERMINE WHAT STUDIES HAVE BEEN DONE, OR ARE IN PROGRESS, IT IS ESSENTIAL TO TURN TO BIBLIOGRAPHIES, INDEXES, AND LISTS OF CURRENT RESEARCH PROJECTS.

THE SEARCH PROCEEDS FOR REPORTED DOCUMENTARY, EXPERIMENTAL, AND DESCRIPTIVE RESEARCH, AS WELL AS FOR CASE STUDIES. PRIMARY DOCUMENTS ARE OF FIRST CONCERN; PERIODICALS PUBLISHING DIRECT REPORTS OF RESEARCH STUDIES ARE USEFUL, AS ARE DOCUMENTS AND OTHER SCHOLARLY STUDIES OF THE PROBLEM. BOOKS AND ARTICLES EXPRESSING OPINIONS ON THE SUBJECT BY PERSONS HAVING SPECIAL COMPETENCE OR EXPERIENCE, WHILE USEFUL, ARE NOT AS SOUND A BASIS FOR EVIDENCE AS REPORTS OF ACTUAL RESEARCH.

TO AVOID DUPLICATING RESEARCH, INQUIRY SHOULD BE MADE OF MAJOR ORGANIZATIONS OR ASSOCIATIONS WHERE THERE MIGHT BE KNOWLEDGE AMONG

OFFICIALS AS TO WHETHER SUCH RESEARCH IS IN PROGRESS. IN ADDITION TO POLLING THE ASSOCIATIONS, SEARCH INVOLVES USING INDEXES, SUCH AS Current Index to Journals in Education, AND Resources in Education FOR THE LISTING OF EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) DOCUMENTS. THE EARLIER ERIC DOCUMENTS CAN BE SEARCHED THROUGH THE CUMULATIVE Complete Guide and Index to ERIC Reports Thru December 1969. AN INCREASING NUMBER OF RESEARCHERS HAVE ACCESS TO ON-LINE COMPUTER SEARCHES INCLUDING EDUCATIONAL DATABASES, AVAILABLE THROUGH DIALOG TO NAME BUT ONE VENDOR. ALTHOUGH IT IS POSSIBLE TO INVEST IN A COMMERCIAL COMPUTER SEARCH SUCH AS DATRIX, INFORMATION CONCERNING DISSERTATIONS CAN BE LOCATED THROUGH Comprehensive Dissertation Index, 1861-1972, AND ITS SUPPLEMENTS. DISSERTATIONS LIMITED TO THE AREA OF THE COMMUNITY OR JUNIOR COLLEGE ARE LISTED, AS WELL, IN THE Community/ Junior College Research Quarterly.

DESIGN OF THE SURVEY

THE SURVEY DESIGN IS AIMED AT PRECISION, LOGIC AND EFFICIENCY. IF POORLY DESIGNED, IT WILL FAIL TO PROVIDE ACCURATE ANSWERS TO THE QUESTIONS OF RESEARCH.[5] AFTER THE DECISION IS MADE TO USE A QUESTIONNAIRE AS THE PRINCIPAL DATA GATHERING INSTRUMENT, THE SUBJECT OF QUESTIONNAIRE DESIGN IS RELATED TO THE PLAN OF THE SURVEY. IT IS ESSENTIAL THAT THE QUESTIONNAIRE SERVE A SPECIFIC PURPOSE. IT MUST TRANSLATE THE RESEARCH OBJECTIVES INTO SPECIFIC QUESTIONS, THE ANSWERS TO WHICH PROVIDE THE DATA NECESSARY TO EXPLORE THE AREA SET BY THE RESEARCH OBJECTIVES. IT IS A SCIENTIFIC INSTRUMENT FOR THE

COLLECTION OF DATA AND MUST BE DESIGNED ACCORDING TO PARTICULAR SPECIFICATIONS; THERE ARE SPECIFIC AIMS. THOUGHT IS GIVEN TO THE INVESTIGATION AS A WHOLE AND NOT MERELY TO THE WORDING OF PARTICULAR QUESTIONS. THE RESEARCHER MUST ASSUME RESPONSIBILITY FOR ANY FAULTS IN ITS DESIGN.

PREPARATION OF THE QUESTIONNAIRE IS NOT THE FIRST STEP IN THE SURVEY. THE WHOLE PROGRAM HAS TO BE CAREFULLY DEVISED SO AS TO ACCOMPLISH THE OBJECTIVE OF OBTAINING A LARGE PERCENTAGE OF RETURNS. AN ERIC NEWSLETTER[6] STRESSES THE FACT THAT SURVEYS WITH AN INADEQUATE NUMBER OF RESPONSES ARE DISTRESSINGLY NUMEROUS. IT IS NOT SATISFACTORY TO MAIL OUT A CERTAIN NUMBER OF QUESTIONNAIRES AND ACCEPT ANY PROPORTION THAT ARE RETURNED. THIS METHOD OF DATA COLLECTION CAN HAVE THE DISADVANTAGE OF A POOR RESPONSE RATE. OTHER THAN THE UNCERTAINTY OF OBTAINING REPLIES, THERE ARE THE LIMITATIONS OF EXTRACTING PERSONAL AND SOMETIMES CONFIDENTIAL INFORMATION FROM THE RESPONDENTS. OTHER POSSIBLE PROBLEMS INCLUDE SEMANTIC DIFFICULTIES INVOLVED IN INTERPRETATION OF QUESTIONS, AND THE LACK OF ANY WAY TO GAUGE SINCERITY IN REPLIES. IT IS GENERALLY ASSUMED THAT THE RESPONDENT WILL GIVE TRUTHFUL ANSWERS; HOWEVER, ONE HAS TO CONSIDER THAT THE PERSON MAY GIVE INACCURATE ANSWERS EITHER INTENTIONALLY OR ACCIDENTLY. IT IS ESSENTIAL THAT THE RESPONDENT HAVE THE SAME UNDERSTANDING OF THE QUESTION AS THAT OF THE RESEARCHER.[7]

QUESTIONNAIRE

BEFORE CONSTRUCTION, A ROUGH IDEA OF THE PATTERN THAT THE INQUIRY IS LIKELY TO FOLLOW IS FORMED. AN OUTLINE GIVING THE SEQUENCE OF MAJOR AND MINOR ISSUES IS PREPARED.[8] SPECIFICATIONS FOR THE QUESTIONNAIRE FOLLOW DIRECTLY FROM THE OPERATIONAL STATEMENT OF THE ISSUES BEING INVESTIGATED. IN ORDER TO ACHIEVE THE PURPOSE OF THE QUESTIONNAIRE, EACH QUESTION HAS TO CONVEY TO THE RESPONDENT THE IDEA REQUIRED BY THE RESEARCH OBJECTIVES, AND EACH QUESTION HAS TO OBTAIN A RESPONSE WHICH CAN BE ANALYZED SO THAT THE RESULTS CAN FULFILL RESEARCH OBJECTIVES. AS THE EARLY STAGES OF THE RESEARCH PROGRESS, SUBTLE CHANGES TAKE PLACE REQUIRING REVISED SPECIFICATIONS FOR THE INSTRUMENT.

THE FOLLOWING GUIDELINES CAN BE USED IN PREPARING THE QUESTIONNAIRE.[9]

1. IT SHOULD BE AS BRIEF AS POSSIBLE.
2. THE INFORMATION SOUGHT IS OTHERWISE INACCESSIBLE.
3. THE SUBJECT IS IMPORTANT ENOUGH TO JUSTIFY TIME AND EFFORT INVOLVED.
4. THE QUESTIONS ARE AIMED AT OBTAINING FACTUAL DATA.
5. THE WORDING OF EVERY ITEM IS PLANNED TO BE UNDERSTANDABLE.
6. THE ITEMS ARE NEAT AND LOGICAL IN ORDER.
7. THE QUESTIONNAIRE IS CONVENIENTLY PLANNED SO AS TO TAKE UP A MINIMUM OF THE RESPONDENTS' TIME.
8. CLEAR INSTRUCTIONS ARE INCLUDED.

IF THERE IS NO KNOWN QUESTIONNAIRE IN EXISTENCE WHICH COULD BE USED FOR PURPOSES OF DATA GATHERING IN A PARTICULAR SURVEY, CLOSE EXAMINATION OF INSTRUMENTS EMPLOYED BY OTHERS CAN SUGGEST THE THRUST OF SOME OF THE QUESTIONS.

ALL QUESTIONS SHOULD BE AS OBJECTIVE AS POSSIBLE SO THAT THE RESPONDENT CANNOT GUESS WHAT ANSWER THE INVESTIGATOR WOULD PREFER HIM TO GIVE, OR WHETHER THERE WAS ANY PREFERENCE AT ALL. THE REQUIREMENT FOR OBJECTIVITY CANNOT BE OVEREMPHASIZED. IT IS IMPORTANT TO WATCH FOR WORDS, WHICH THOUGH INNOCENT, MIGHT BE EMOTIVE TO SOME OF THE RECIPIENTS OF THE QUESTIONNAIRE.[10]

Questions

EACH QUESTION HAS TO BE CONSTRUCTED SO AS TO ELICIT A RESPONSE WHICH ACCURATELY REFLECTS EACH RESPONDENT'S POSITION IN REGARD TO ATTITUDE, OPINION OR SUPPLIED FACT. A DECISION MAY BE MADE FOR A "CLOSED" OR RESTRICTED QUESTIONNAIRE, WITH SOME "SPECIFY" OPPORTUNITIES RATHER THAN AN "OPEN" QUESTIONNAIRE IN WHICH RESPONDENTS ARE FREE TO WRITE AS THEY WISH ON A GIVEN QUESTION. THE OPEN STYLE ANSWERS CAN RESULT IN ANSWERS THAT ARE DIFFICULT TO COMPARE, AS WELL AS CONVINCE THE RESPONDENT THAT THE QUESTIONNAIRE MUST BE SET ASIDE UNTIL THERE IS TIME TO WRITE ESSAY TYPE ANSWERS. THE CLOSED QUESTIONNAIRE, EASIER AND QUICKER TO ANSWER, REQUIRES NO WRITING BUT IS LESS SUBTLE THAN AN OPEN-ENDED QUESTIONNAIRE. IT HAS THE DISADVANTAGE OF THE LOSS OF SPONTANEITY AND EXPRESSIVENESS FORCING SUBJECTS TO CHOOSE BETWEEN GIVEN ALTERNATIVES.[11] AN ADVANTAGE OF THE CLOSED FORM IS THAT IT HELPS TO AVOID AMBIGUITY AND MISINTERPRETATION. ALTHOUGH

PROVISION OF A SET OF POSSIBLE ANSWERS MAKES IT EASIER FOR THE RESPONDENT TO RECORD, IT ENCOURAGES THE USE OF ONE OF THE PRESCRIBED ANSWERS WHEN PERHAPS NONE FITS THE SITUATION.[12] IT IS NOT POSSIBLE TO PREPARE ALTERNATIVES FOR ALL POSSIBLE ANSWERS, AS THERE MAY BE SOME UNLIKELY ONES. A REASONABLE COMPROMISE IS THE PROVISION OF THE CATEGORY "OTHER" FOLLOWED BY "SPECIFY". QUESTIONS WITH ANSWERS PROVIDED IN CATEGORIZED FORM ARE CONSIDERED PRE-CODED; A PREPONDERANCE OF SUCH QUESTIONS ENCOURAGES RESPONSE. THE CATEGORIZATION OF QUESTIONS BY BREAKING THEM DOWN INTO POSSIBLE ANSWERS, OR MULTIPLE CHOICES, DOES HAVE THE ADVANTAGE OF REFRESHING THE MEMORY OF THE RECIPIENT, AND GUIDING HIS RESPONSE ALONG THE SAME LINE AS THAT OF THE INQUIRY. IN ADDITION TO THE OPEN END QUESTIONS AND MULTIPLE CHOICE OPTIONS, BERDIE AND ANDERSON DESCRIBE DICHOTOMOUS QUESTIONS WITH "YES" OR "NO" REPLIES, FILL IN THE BLANK TYPES, AND RANK OR SCALE RESPONSE OPTIONS. SOME ITEMS CAN BE PREPARED, USING A SCALE OF ENDORSEMENT, SO THAT RESPONDENTS INDICATE THAT THEY AGREE OR DISAGREE WITH A STATEMENT. WITH AN ODD NUMBER SUCH AS FIVE POINTS, RESPONDENTS WILL OFTEN CHOOSE THE MID-POINT. BERDIE AND ANDERSON[13] SUGGEST THAT A SCALE SHOULD PROVIDE AN EQUAL NUMBER OF DEGREE OPTIONS.

WORDING

THE CHOICE OF LANGUAGE SHOULD BE THAT VOCABULARY WHICH OFFERS THE MAXIMUM OPPORTUNITY FOR COMPLETE AND ACCURATE COMMUNICATION OF IDEAS BETWEEN THE INVESTIGATOR AND THE RESPONDENT. IF THE STUDY IS OF EDUCATORS OR OTHER SPECIALISTS, THE DIFFERENT AND SPECIALIZED VOCABULARIES ARE MORE APPROPRIATE THAN THE LANGUAGE OF THE LAYMAN.

TECHNICAL WORDING IS ALLOWED; HOWEVER, IT IS NECESSARY TO COMMUNICATE SUCCESSFULLY WITH THE LEAST SOPHISTICATED OF THE RESPONDENT POPULATION AND AT THE SAME TIME AVOID THE APPEARANCE OF OVERSIMPLIFICATION.[14] THE WORDING SHOULD TAKE INTO ACCOUNT THAT EACH QUESTION AND RESPONSE AFFECTS THE RESPONDENTS' MOTIVATION TO CONTINUE, THEREBY AFFECTING THE FINAL OUTCOME OF THE STUDY. A RESEARCHER IS LIKELY TO OBTAIN MORE ACCURATE AND THOUGHTFUL ANSWERS THAN USUAL IF THE CURIOSITY OF THE RESPONDENTS CAN BE AROUSED, AND IF THE QUESTIONNAIRE IS INTERESTING IN ADDITION TO BEING ANSWERABLE. THE MORE INTERESTED THE PEOPLE ARE IN THE SUBJECT OF THE QUESTIONNAIRE, THE MORE LIKELY THEY ARE TO COMPLETE AND RETURN QUESTIONNAIRES OF SOME LENGTH.

LAYOUT

INDIVIDUAL QUESTIONS SHOULD BE SO ARRANGED THAT THEY FOLLOW EXPECTATIONS OF THE RESPONDENTS, ALTHOUGH THE QUESTIONS WHICH SHOULD BE ASSOCIATED TOGETHER FROM AN ANALYST'S PERSPECTIVE MAY BE SEPARATED IN THE INSTRUMENT. PROGRESS FROM ITEM TO ITEM SHOULD BE FACILITATED AS MUCH AS POSSIBLE, AND CAN BE ARRANGED SO THAT THERE IS ANTICIPATION OF THE NEXT QUESTION. IT IS IMPORTANT, THEREFORE, THAT THE DEVELOPMENT OF THE TOPIC FROM ONE QUESTION TO ANOTHER, FROM ONE SEQUENCE TO ANOTHER, BE REASONABLE FROM THE POINT OF VIEW OF THE RESPONDENT, AS WELL AS THAT OF THE RESEARCHER.

THE LAY-OUT IS PLANNED WITH A VIEW TO MAKING THE QUESTIONNAIRE ABSOLUTELY CLEAR. THERE SHOULD BE AN ATTEMPT TO MAINTAIN RAPPORT BY MAKING IT CONVENIENT FOR THE RESPONDENT, SO THAT HE OR SHE WILL HAVE A MINIMUM EXPENDITURE OF TIME AND EFFORT. EVERY POSSIBLE EFFORT IS MADE TO ASSURE "RESPONDENT ORIENTATION."[15] MARKINGS ARE USUALLY

HASTY, HENCE, THE FORM HAS TO BE DESIGNED IN SUCH A WAY AS TO MINIMIZE THE RISK OF AMBIGUOUS OR UNINTELLIGIBLE MARKING. LAY-OUT IS PLANNED WITH CLOSE ATTENTION TO SPACING, HEADINGS, MARGINS, LINES, INSETS, AND DIRECTIONS. DEFINITIONS, WHEN REQUIRED, MUST BE INCORPORATED. FORMS ARE REDESIGNED NUMEROUS TIMES BEFORE AN ACCEPTABLE FORMAT EMERGES. ADVANCE PLANNING OF THE FORM AS TO SEQUENCE AND NUMBERING CAN FACILITATE THE EVENTUAL TABULATING AND SUMMARIZING.

DISTRIBUTION

POPULATION

IT IS ESSENTIAL TO HAVE CLEARLY IN MIND THE EXACT NATURE OF THE POPULATION TO BE INVESTIGATED. THE UNIVERSE HAS BEEN DEFINED AS THE TOTALITY OF ALL POSSIBLE MEASUREMENTS OR INSTANCES OF A PHENOMENON.[16] SIZE AND REPRESENTATIVENESS OF THE SAMPLE POPULATION HAVE AN IMPORTANT BEARING ON THE RESULTS OBTAINED. SURVEYS ARE USUALLY CONDUCTED ON A FAIRLY LARGE SCALE, AND IF AN ENTIRE POPULATION OR UNIVERSE IS SURVEYED, THE PROBLEM OF SELECTING A REPRESENTATIVE SAMPLE IS NOT ENCOUNTERED.

PILOT

IT IS IMPORTANT THAT ANY RESPONDENTS IN PILOT STUDIES BE AS SIMILAR AS POSSIBLE TO THOSE IN THE MAIN INQUIRY. IN SOME INSTANCES UNIVERSITY STUDENTS ARE WILLING PARTICIPANTS IN PILOT STUDIES, BUT THE PRACTICE OF TRYING OUT QUESTIONNAIRES ON GRADUATE STUDENTS IS ILL-ADVISED.[17]

PROBLEMS WHICH SEEM MOST DIFFICULT AT THE OUTSET RECEIVE THE GREATEST AMOUNT OF PILOT WORK. AFTER AMBIGUITIES ARE ELIMINATED,

FURTHER PILOT WORK IS NECESSARY TO BE SURE THAT NEW WORDING DOES NOT INTRODUCE NEW DIFFICULTIES. QUESTIONS ADAPTED FROM OTHER SURVEYS NEED CAREFUL PERUSAL AS WELL. REGARDLESS OF THE AMOUNT OF ATTENTION TO DETAIL OF THE QUESTIONNAIRE IN WORDING AND DESIGN, THE RESEARCHER SHOULD EXPERIMENT WITH PILOT RESPONDENTS BEFORE LAUNCHING INTO FIELD STUDIES. PARTICIPANTS IN THE PILOT STUDY ARE URGED TO DEVOTE TIME TO THE EXAMINATION OF THE QUESTIONNAIRE IN ORDER TO DETERMINE WHETHER AMBIGUITIES EXIST OR WHETHER THE INSTRUMENT IS OFFENSIVE IN ANY WAY.

Cover Letter

THE INITIAL EXPLANATION OF THE SURVEY IN A COVER LETTER IS IMPORTANT. MOTIVATIONAL FACTORS HAVE TO BE CONSIDERED SINCE THE COMPLETION OF THE QUESTIONNAIRE BY RESPONDENTS DETERMINES THE NATURE OF THE EVENTUAL FINDINGS. A MAILED QUESTIONNAIRE LACKS THE PERSONAL INTRODUCTION OF THE RESEARCH BY THE INVESTIGATOR. THEREFORE, THE TITLE, PURPOSE AND SIGNIFICANCE MUST BE OUTLINED IN THE COVER LETTER, CAREFULLY PREPARED ON LETTERHEAD STATIONARY. THE REQUEST THAT THE QUESTIONNAIRE BE RETURNED "AT EARLIEST CONVENIENCE" IS PREFERABLE TO A SPECIFIC DATE, WHICH IMPLIES SOME PRESSURE.[18] THE COVER LETTER CAN BE REVIEWED AT THE SAME TIME THE INSTRUMENT IS REVIEWED IN THE PILOT STUDY. A LETTER OF TRANSMITTAL, OFTEN WRITTEN BY A SPECIALIST OR WELL KNOWN PERSON IN THE FIELD, WHILE NOT ESSENTIAL, CAN EMPHASIZE THE LEGITIMACY OF THE RESEARCH AND INTRODUCE THE INVESTIGATOR. IT CAN ALSO ENCOURAGE INSTITUTIONAL COOPERATION.

Mailing List

A check list is prepared with notations as to which persons within institutions are to be polled. A reliable directory such as the Community, Junior and Technical College Directory is selected if possible, with up-to-date addresses of community colleges.

If the questionnaire is directed to the college president, whose name appears in the directory, that executive is asked to forward the instrument to the faculty or staff member concerned. Some chief administrative officers in community colleges prefer to know what questionnaires are being received within an institution. The alternative is to send the instrument directly to the subject specialist within the college.

By mailing all of the questionnaires at the same time, it increases the chance that they will be filled in at nearly the same time and will therefore be comparable. It reduces the danger that later recipients will be influenced by any communication among early recipients.[19] Each form must have an identification number so that it can be checked in upon its return. Nixon suggests that the use of numbered questionnaires with code identification is not at all unethical.[20] He adds, however, that space can be provided for name and title if the respondent wishes to be identified.

Returns

Returns should begin to come in by the end of the first week. It is to be expected that some people will not return the question-

NAIRES. STEPS ARE PLANNED IN ADVANCE TO ASCERTAIN WHICH PERSONS MUST BE APPROACHED AGAIN. FOLLOW-UP IN THE FORM OF A LETTER AND ANOTHER COPY OF THE QUESTIONNAIRE CAN BE SENT TO ENSURE THE RECEIPT BY EVERY PERSON DESIGNATED AS A PARTICIPANT IN THE STUDY. IT IS APPROPRIATE TO SEND THE FOLLOW-UP AT THE END OF APPROXIMATELY THREE WEEKS. A FINAL CUT-OFF DATE IS NOTED. THIS REMINDER WILL BRING IN FURTHER REPLIES, AND USE OF THE SAME IDENTIFICATION NUMBER WILL PREVENT THE INADVERTENT INCLUSION OF A SECOND REPLY FROM ANY ONE RESPONDENT. STUDIES OF SIMILAR POPULATIONS WILL PROVIDE A GUIDE SO THAT THE EXPECTED RATE OF RETURN CAN BE CALCULATED IN ADVANCE.

PROCESSING OF DATA

CODING

KNOWLEDGE THAT DATA CARDS WILL BE USED ASSISTS IN THE SPECIFICATIONS FOR THE PROJECT. THE NUMBER OF INDIVIDUAL QUESTIONS CAN BE PLANNED ACCORDINGLY, WITH CODING NUMBERS ASSIGNED TO INDIVIDUAL QUESTIONS CORRESPONDING TO COLUMNS OF THE DATA CARDS.

MOST MULTIPLE CHOICE ITEMS ALLOW FIVE OR SIX CATEGORIES. ALLOWANCE MUST BE MADE FOR THE EXTRA CATEGORY OF "NO REPLY" OR "DO NOT KNOW". THOSE QUESTIONS WITH "SPECIFY" DESIGNATION REQUIRE PREPARATION OF CODING FRAMES AFTER A NUMBER OF RESPONSES HAVE BEEN RECEIVED. DURING THE REVIEW OF SCHEDULES AND THE EDITING OF INDIVIDUAL RETURNS, ANSWERS IN THE "SPECIFY" CATEGORIES CAN BE TRANSLATED INTO NUMERICAL SYMBOLS TO SIMPLIFY ANALYSIS.

THE INVESTIGATOR CHECKS TO SEE WHETHER PARTS OF THE QUESTIONNAIRE ARE CONSISTENT AND IS ALERT TO OBVIOUS ERRORS. TABULATION OF SIMPLE OBJECTIVE RESPONSE IS RELATIVELY FREE OF PROBLEMS.

CODING IS THE ADDITIONAL STAGE BETWEEN THE EDITING OF RETURNS AND ANALYSIS OF DATA. IF NUMBERING OF QUESTIONNAIRES HAS BEEN DONE CAREFULLY TO CORRESPOND TO THE DATA CARDS, KEYPUNCHING CAN BE DONE DIRECTLY FROM THE QUESTIONNAIRES. HOWEVER, WITH A LARGE NUMBER OF RETURNS BEING PROCESSED, IT IS DIFFICULT FOR A KEYPUNCH OPERATOR TO WORK DIRECTLY WITH SEVERAL SHEETS, OFTEN WITH RESPONDENTS' COMMENTS PENCILLED IN THE MARGINS. WHEN THE NUMBERS CORRESPOND TO THE DATA CARDS, DATA CAN BE TRANSFERRED QUICKLY TO GENERAL PURPOSE DATA FORMS, OR CODING SHEETS, FROM WHICH KEYPUNCHING IS DONE.

COMPUTER

BEFORE CONTEMPLATING THE USE OF A COMPUTER IN ANALYZING THE DATA IN A SIZEABLE SURVEY, IT IS NECESSARY TO ENSURE THAT THE APPROPRIATE HARDWARE IS AVAILABLE, SUCH AS THE KEYPUNCH, VERIFIER, COUNTER-SORTER, AND TABULATOR. FOR DESCRIPTIVE SURVEYS, AN APPROPRIATE PROGRAM CAN BE PREPARED BY A COMPUTER PROGRAMMER, OR A PROGRAM SUCH AS THE STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES CAN BE USED WITH CERTAIN ADJUSTMENTS BY A PROGRAMMER. AFTER THE INFORMATION HAS BEEN PROCESSED BY THE COMPUTER, IT IS AVAILABLE ON A PRINT-OUT IN HARD COPY OR FICHE FORMAT, FROM WHICH ANALYSIS CAN BE MADE.

CONCLUSION

THE SURVEY METHOD IS BEING USED FREQUENTLY TO DESCRIBE VARIOUS GROUPS OF PERSONS ENGAGED IN A VARIETY OF DUTIES. THE EDUCATIONAL COMMUNITY, INUNDATED BY A DELUGE OF QUESTIONNAIRES, OCCASIONALLY RECEIVES POORLY CONSTRUCTED ONES. THIS HAS CAUSED PREJUDICE AND HOSTILITY TOWARD SUCH A DATA GATHERING INSTRUMENT IN SOME CASES.

IN ORDER TO OBTAIN ACCURATE AND FACTUAL DATA, THE SURVEY INSTRUMENT MUST BE WELL CONSTRUCTED AND THE SURVEY CONDUCTED UNDER STRICT CONDITIONS. PLANNING AND DESIGN ARE OF PRIME IMPORTANCE AND ACCURACY AND PRECISION ARE ABSOLUTELY ESSENTIAL. AT THE SAME TIME THE SURVEYOR MUST REMAIN OBJECTIVE IN SEEKING ANSWERS TO RESEARCH QUESTIONS, THEREBY PROVIDING RELIABLE DATA FOR A PREVIOUSLY LACKING DESCRIPTION.

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JUN 15 1979

CLEARINGHOUSE FOR
JUNIOR COLLEGES